

### **REMARKS/ARGUMENTS**

Claims 1 – 22 remain in this application. Claims 1 and 14 have been amended. Applicants point out the change in Attorney docket number, and respectfully request that future reference be made to SP03-146.

#### **Allowable Claims**

Applicants note with appreciation the Examiner's observation that claims 14 – 22 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 101.

#### **§ 101 Rejections**

The Examiner has rejected claims 14 – 22 because the claimed invention is directed to non-statutory matter.

Applicants believe the amendment to claim 14 overcomes the rejection.

#### **§ 103 Rejections**

The Examiner has rejected claims 1, 7 and 13 under 35 U.S.C. § 102(b) as being anticipated by DeBoynton (US 6,304,383), asserting that the subsequent thermal processing includes forming at least one semiconductor layer over the glass material.

The Examiner further contends that DeBoynton discloses a method of determining parameters of [a] plurality of thermal cycles to achieve a set glass strain level comprising providing a plurality of input parameters for a glass substrate and a plurality of parameters for a plurality of thermal cycles, and points to FIG. 5, element 248; and col. 7, line 59 – col. 8, line 4. In addition, the Examiner states that DeBoynton also provides a computer adapted to iteratively modify at least one of the plurality of thermal cycle parameters so the glass strain is not greater than the set glass strain level after a final thermal cycle is completed, relying on FIG. 5, elements 186 and 286; the Abstract; col. 2 line 62 – col. 3 line 36; and col. 7 lines 43 – 49.

Applicants respectfully disagree and traverse the rejection.

To begin, it is unclear to what extent the Examiner's assertion that DeBoynton includes forming at least one semiconductor layer over the glass material is relevant, as claims 1, 7 and 13 do not recite a semiconductor layer. In any event, Applicants disagree with this

assertion. DeBoynton discloses the deposition of a thin film on the substrate. there is no indication that the thin film is a semiconductive film.

With regard to claim 1, DeBoynton discloses an apparatus for temperature compensation of an interference filter by inducing several mismatched stresses in the filter. These mismatched stresses are induced by materials surrounding the interference filter. That is, the filter is disposed between an optically transmissive substrate and a holder. Strains developed in the substrate and the holder are transferred to the interference filter and manifest as separate thermal mismatch stresses in the filter that modify the filtering characteristics thereof. Strains in the substrate and the holder may be induced mechanically or by utilizing an electric/magnetic field.

It is not clear how temperature compensation in an optical filter is the same as modifying thermal cycle parameters to maintain a certain glass strain level after completion of a final thermal cycle. Rather than setting a glass strain level in a glass substrate, Deboynton selects the strain in a substrate and a holder to temperature compensate the optical interference properties of a filter. The iterative process of Applicants' claims is directed to attaining a particular glass strain level, and not selecting materials to offset strain in a structure. DeBoynton does not disclose providing a plurality of input parameters for a glass substrate. Nor does DeBoynton teach providing a plurality of parameters for a plurality of thermal cycles. Finally, DeBoynton does not teach or fairly suggest iteratively modifying at least one of the plurality of thermal cycle parameters so the glass strain is not greater than the set glass strain level after a final thermal cycle is completed.

More specifically, the Examiner contends that determining parameters of [a] plurality of thermal cycles to achieve a set glass strain level comprising providing a plurality of input parameters for a glass substrate and a plurality of parameters for a plurality of thermal cycles can be found at FIG. 5, element 248; and col.7, line 59 – col. 8, line 4. Element 248 is a user input device, such as a potentiometer (col. 7, lines 63 – 64). The description between col. 7 line 59 and col. 8 line 4 discloses how controller 286 is used to direct the electric/magnetic field generator 282 based on user input to modify the electric/magnetic field, thereby providing the interference field with the desired filter characteristics. There is no suggestion, explicit or implied, that parameters of a plurality of thermal cycles for a glass substrate are determined, let alone that these parameters are determined by providing a plurality of input parameters for a glass substrate and a plurality of parameters for a plurality of thermal cycles.

The Examiner also asserts that FIG. 5, elements 186 and 286; the Abstract; col. 2 line 62 – col. 3 line 36; and col. 7 lines 43 – 49 show that DeBoynton iteratively modifies with a computer at least one of the plurality of thermal cycle parameters so the glass strain is not greater than the set glass strain level after a final thermal cycle is completed. Elements 186 and 286 relate to a controller. The controller is used to control the electric/magnetic field generator that in turn induces dimensional changes directly in the interference filter (col. 6, lines 23 – 31). The foregoing references merely recite what has been presented previously with regard to DeBoynton...that a thin film (or films) is deposited on a glass substrate, then bonded to a holder such that the thin film(s) is disposed between the substrate and the holder. The holder is subjected to a temperature wherein thermal mismatch stresses between the substrate and the film, and the holder and the film, interact to change the filtering characteristics of the filter. Moreover, a electric/magnetic field generator may be used to change the dimensions of the filter, based on user control, in conjunction with the temperature induced thermal mismatch. It is not at all clear how this relates in any way to Applicants claimed invention.

Rejection based on anticipation requires that each and every element be found in the reference. Applicants assert that the Examiner has failed to make a prima facie case of anticipation, and that claim 1 is novel over the prior art of record. Applicants also contend that claims 7 and 13 are also novel over the prior art of record and being dependent upon a patentable claim.

The Examiner has rejected claims 2 - 6 under 35 U.S.C. § 103(a) as being unpatentable over DeBoynton (US 6,304,383), in view of Bocko (US 5,597,395).

The Examiner asserts that DeBoynton discloses thermal processing that includes forming at least one semiconductor layer over the glass material. For the reasons given above – DeBoynton does not disclose that the thin film or films are semiconductor layers – Applicants disagree with the Examiner's position.

Applicants point out that DeBoynton is directed to a method of temperature compensating an optical filter, whereas Bocko is directed to a method of forming a glass substrate. There is no motivation or suggestion for combining DeBoynton and Bocko. They are non-analogous art. For at least this reason, and the reasons given above with respect to claim 1, Bocko does not cure the deficiencies of DeBoynton. Applicants assert that claims 2-6 are therefore patentable over the prior art of record.

The Examiner has rejected claims 8 – 12 under 35 U.S.C. § 103(a) as being unpatentable over DeBoynton (US 6,304,383).

For at least the reasons above with respect to claim 1, Applicants assert that claims 8 – 12 are patentable as being dependent upon a patentable claim.

The above notwithstanding, applicants respectfully traverse the rejection of claims 8-12 as being merely design choices of the artisan of ordinary skill. Applicants note that the ranges of strain have applicability in many settings, such as the maximum compaction in LCD substrates. The attainment of these parameters is not a matter of design choice. Moreover, the Examiner has not provided evidence, extrinsic or from personal knowledge of the asserted routine nature of these claims. As such, the present rejection is traversed as lacking foundation. If the Examiner relies upon extrinsic evidence for support for this assertion, such evidence is respectfully requested. If, however, the assertion is from the personal knowledge of the Examiner, an affidavit under 37 C.F.R. 1.104(d)(2) is respectfully requested. Else, the rejection of claims 8 – 12 should be withdrawn.

## **Conclusion**

Based upon the above amendments, remarks, and papers of records, Applicants believe the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Applicants believe that no extension of time is necessary to make this Reply timely. Should applicant be in error, Applicants respectfully requests that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.


Appl. No.: 10/699,591  
Amdt. Dated: April 12, 2007  
Reply to Office Action of: March 21, 2007

Please direct any questions or comments to Kevin M. Able at 607-974-2637.

Respectfully submitted,

Date: April 12, 2007

CORNING INCORPORATED

A handwritten signature in black ink, appearing to read "Kevin M. Able", is written over a horizontal line.

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